



**ENGINEERING OPERATIONS COMMITTEE  
MEETING MINUTES**

**FEBRUARY 3, 2009 – 9:00 A.M.  
EXECUTIVE CONFERENCE ROOM**

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*Present:* J. Friend J. Polasek B. O'Brien  
J. W. Reincke M. Van Port Fleet J. D. Culp  
T. Kratofil C. Roberts T. Fudaly  
C. Bleech E. Burns

*Absent:* L. Tibbits

*Guests:* S. Bower B. Krom J. Rick  
S. Sorensen B. Zimmerman T. Burch, FHWA

**OLD BUSINESS**

**1. Approval of the November 6, 2008, Meeting Minutes – J. Friend**

The November 6, 2008, meeting minutes are approved.

**NEW BUSINESS**

**1. Roundabout Agreements – M. Van Port Fleet and S. Bower**

In November 2007, the EOC approved the *Michigan Roundabout Guide*, which is intended to educate staff on the basic elements of roundabout planning, design, and operations. Since then, roundabouts are quickly becoming a preferred solution to alleviate many congestion and operational problems at intersections.

To date many of these intersection locations to date impact roadways that are under state and local jurisdictional authority. This has necessitated the development of agreements to assign cost-sharing responsibilities to each agency. Cost participation issues include initial construction, lighting, signing, and pavement marking. In addition, there are questions about sharing of maintenance responsibility for signing, snow removal, pavement marking, lighting energy costs, and future rehabilitation. Standard cost sharing agreement language needs to be developed to ensure consistency statewide. Some local communities may object to participation, which may affect the decision to select roundabouts as a desired geometric solution.

In accordance with federal guidelines, the *Michigan Roundabout Guide* recommends lighting at roundabouts; however, Public Act 51 does not allow the department to pay for the installation and operation of lights, except on freeways. Without alternative methods of payment for lighting installation and maintenance, we are unable to construct roundabouts

that fully meet federal and state guidelines. Changes to Public Act 51 are needed and until such time changes can be made, cost-sharing agreements should consider methods for the temporary funding of lighting installation and maintenance.

**ACTION:** The Roundabout Committee is assigned the following:

1. Develop standard agreement language addressing cost sharing for initial construction, maintenance, lighting, lighting energy, signing, snow removal, pavement marking, and future rehabilitation of roundabouts. Tony Kratofil and John Polasek will consult with Larry Tibbits and then provide direction to the Roundabout Committee regarding these agreements. The agreement shall consider alternative payment methods for lighting installation and maintenance costs pending changes to Public Act 51.
2. Develop recommendations for changes to the language in Public Act 51 to allow for the funding of lighting at roundabouts. Mark Van Port Fleet will work with Ron DeCook to incorporate any changes, once approved by EOC.
3. Develop potential alternatives to roundabout illumination in the event that a cost sharing agreement cannot be obtained from a local agency.

## **2. Roundabout Alternative at US-23/Geddes Road Interchange – S. Bower and J. Rick**

This interchange experiences significant backups at the exit ramp terminals and along Geddes Road. During peak hours, backups are common along the length of both the north and southbound off ramps and onto the shoulders of US-23. Congestion Mitigation and Air Quality (CMAQ) funding has been secured to fund operational improvements.

The preferred alternative includes the replacement of the existing southbound on ramp with a loop ramp in the northwest quadrant of the interchange, and improved ramp storage through the addition of turn lanes and roundabouts at the north and southbound ramp terminals. The relocation of the existing southbound on ramp will eliminate the current "offset" of the southbound on and off ramp terminals, which contributes to the inefficiency of the operations of the interchange. This alternative eliminates traffic backups on the exit ramps for the highest traffic volumes, and provides the highest level of safety and capacity improvements both for the exit ramps and the freeway mainline.

Pedestrian access will be accommodated through the construction of a non-motorized path and pedestrian structure along the south side of Geddes Road. Pedestrian traffic will be monitored and modifications will be made as necessary to ensure adequate access.

MDOT's Traffic and Safety Geometrics Unit recommends this alternative as the preferred alternative. In addition, three affected agencies (the Washtenaw County Road Commission, the City of Ann Arbor, and the Washtenaw County Parks and Recreation Department) have provided their support. Approval for the roundabout alternative is recommended.

**ACTION:** The EOC approves the recommendation to construct the preferred alternative.

**3. Use of Traffic Actuated Systems for Temporary Traffic Signals in Work Zones – B. Zimmerman**

Temporary traffic signals are an important traffic control feature used during construction on projects where only one lane of traffic can be maintained, and it is not feasible to provide 24 hour per day, 7 day per week flagging operations. They are typically used with a fixed timing sequence that is based on traffic volumes and the time needed to travel the distance between the temporary signal locations. At many of these locations, traffic volumes may be low enough where a motorist may be delayed unnecessarily when no oncoming traffic is present. The unneeded delays can contribute to motorists running the red signal when no opposing traffic is present.

In 2008, the contractor for the Highways for Life project in the Bay Region utilized a temporary traffic signal with traffic actuation, which allowed the signal to respond directly to motorist presence. It was found to not only reduce delays on the project, but anecdotal evidence indicated that the motorist was more likely to follow the direction of the signal, instead of running or proceeding through the red indication when no other approaching traffic was present.

It is recommended that this type of traffic control device be incorporated into all projects that will be constructed in 2009. For those projects already let, direction will be sent to the project personnel to incorporate the changes. For those projects not yet let, a revised Frequently Used Special Provision (FUSP) shall be included in the contract documents.

**ACTION:** EOC approves the recommendation. A Construction Advisory shall be issued to provide instructions on when to incorporate the new requirements for projects that are already under contract for 2009 construction. The current FUSP shall be revised to reflect the new requirements, and shall be included in all future projects that require temporary traffic signals.

**4. Additional Alternative Pavement Bidding Projects – B. Krom**

MDOT policy and state law requires a life cycle cost analysis (LCCA) be used to determine the most cost effective pavement design to be constructed whenever the pavement cost exceeds \$1 million. This determination is generally made early in the design of a project so the pavement type is known at the time of letting and the plan details reflect the pavement type with the lowest life cycle cost.

For the following two projects, the lowest life cycle cost will be determined at the time of bid, and will use actual unit prices submitted by each contractor. Contractors will have the choice of bidding either a concrete or a hot mix alternative. The contractor with the lowest life cycle cost, as determined by applying the alternative pavement bidding formula to their bid, will be selected. The formula is based on current LCCA procedures. Approval from the FHWA is being sought to add these projects to the SEP-14 for alternative pavement bidding. The projects are as follows:

- CS 14042 - 83996A - US-12 Rehabilitation
- CS 50012 - 47040A - M-53 Reconstruction

Approval is requested to proceed with alternative pavement bidding on these two projects, pending approval from the FHWA to add them to the current SEP-14.

**ACTION:** The request is approved, pending FHWA approval as discussed. In addition, the projects shall be re-evaluated at the base plan stage to verify they are still feasible candidates for alternative pavement bidding.

(Signed Copy on File at C&T)

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Brenda J. O'Brien, Secretary  
Engineering Operations Committee

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cc:	K. Steudle	S. Mortel	J. Steele (FHWA)
	J. Shinn	D. Jackson	R. Brenke (ACEC)
	L. Hank	W. Tansil	G. Bukoski (MITA)
	EOC Members	D. Wresinski	D. DeGraaf (MCPA)
	Region Engineers	C. Libiran	D. Hollingsworth (MCA)
	TSC Managers	R. J. Lippert, Jr.	J. Becsey (APAM)
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	B. Ranck	T. Phillips	J. Murner (MRPA)
	M. DeLong	K. Peters	G. Naeyaert (ATSSA)
	B. Shreck	J. Ingle	C&T Staff